AMENDMENTS TO THE CLAIMS

1. (Currently amended) A recombinator device for the re-acidification of an electrolyte stream in a flowing electrolyte zinc-bromine battery, comprising:

a housing operatively associated with a zinc-bromine battery,

means for receiving hydrogen from the zinc-bromine battery;

means for receiving bromine from the zinc-bromine battery;

means for controlling the temperature within the reaction chamber;

means for reacting the hydrogen and bromine together so as to form hydrobromic acid, said reaction means including a reaction chamber; [[and]]

means for distributing the hydrobromic acid into at least one of an electrolyte stream or electrolyte reservoir of the zinc-bromine battery for re-acidification of same; and

means for facilitating the reaction of hydrogen and bromine within the reaction chamber, said reaction facilitating means comprising a catalyst.

2. (Original) The device according to claim 1 wherein the hydrogen receiving means and the bromine receiving means comprise an inlet stream coupling operatively attached to the zinc-bromine battery.

3. (Original) The device according to claim 1 wherein the hydrobromic distribution means comprises an outlet stream coupling operatively attached to at least one of an electrolyte stream or electrolyte reservoir of the zinc-bromine battery.

4. (Canceled).

5. (Canceled).

6. (Currently amended) The device according to claim [[5]] 1 wherein the catalyst comprises a platinized carbon cloth.

7. (Currently amended) [[The]] A recombinator device ~~according to claim 4~~ for the re-acidification of an electrolyte stream in a flowing electrolyte zinc-bromine battery, comprising:

a housing operatively associated with a zinc-bromine battery,

means for receiving hydrogen from the zinc-bromine battery;

means for receiving bromine from the zinc-bromine battery;

means for reacting the hydrogen and bromine together so as to form hydrobromic acid, said reaction means including a reaction chamber;

means for facilitating the reaction of hydrogen and bromine within the reaction chamber; and

means for distributing the hydrobromic acid into at least one of an electrolyte stream or electrolyte reservoir of the zinc-bromine battery for re-acidification of same,

wherein the reaction facilitating means comprises means for controlling temperature within the reaction chamber.

8. (Original) The device according to claim 7 wherein the temperature controlling means is in thermal contact with at least a portion of the housing.

9. (Canceled).

10. (Original) The device according to claim 1 further including means for controlling flow of a gas through the housing.

11. (Original) The device according to claim 10 wherein the flow control means comprises positioning of the catalyst in an arrayed spiral configuration within the reaction chamber.

12. (Original) The device according to claim 11 further comprising spacing means positioned between the spirals of the catalyst for facilitating the flow of a gas therethrough.

13. (Original) The device according to claim 10 wherein the flow control means comprises at least a portion of the reaction chamber being constructed from a mesh material.

14. (Canceled)

15. (Currently amended) A [[The]] recombinator device ~~according to claim 14~~ for the re-acidification of an electrolyte stream in a flowing electrolyte zinc-bromine battery, comprising:

a housing operatively associated with a zinc-bromine battery,

means for receiving hydrogen from the zinc-bromine battery;

means for receiving bromine from the zinc-bromine battery;

means for reacting the hydrogen and bromine together so as to form hydrobromic acid;

means for distributing the hydrobromic acid into at least one of an electrolyte stream or electrolyte reservoir of the zinc-bromine battery for re-acidification of same; and

means for controlling delivery of bromine into the reaction chamber,

wherein the delivery control means comprises a capillary operatively associated with the bromine receiving means.

16. (Original) The device according to claim 15 wherein the capillary is sized to deliver one to two drops of aqueous bromine per minute.

17. (Original) The device according to claim 1 wherein the housing further includes an excess aqueous bromine pool region adjacent the hydrobromic acid distribution means.

18. (Canceled).

19. (Previously amended) A method for re-acidifying an electrolyte in a flowing electrolyte zinc-bromine battery, comprising the steps of:

-introducing an electrolyte stream from the zinc-bromide battery into a reaction chamber, wherein the electrolyte stream at least partially comprises aqueous bromine and hydrogen;

reacting the bromine with the hydrogen to create a reaction product; and

reintegrating the reaction product with at least one of an electrolyte stream or an electrolyte reservoir of the zinc-bromine battery for re-acidification of same,

wherein the step of introducing further includes the step of controlling the rate of bromine and hydrogen introduced into the reaction chamber, and

wherein the step of controlling comprises the step of allowing one to two drops of the hydrogen and bromine electrolyte stream per minute.

20. (Canceled).

21. (Canceled).

22. (Currently amended) ~~The invention according to claim 18~~ A method for re-acidifying an electrolyte in a flowing electrolyte zinc-bromine battery, comprising the steps of:

introducing an electrolyte stream from the zinc-bromide battery into a reaction chamber, wherein the electrolyte stream at least partially comprises aqueous bromine and hydrogen;

reacting the bromine with the hydrogen to create a reaction product;

reintegrating the reaction product with at least one of an electrolyte stream or an electrolyte reservoir of the zinc-bromine battery for re-acidification of same; and

~~wherein the method further includes the step of~~ regulating the temperature of the housing, and, in turn, the temperature within the reaction chamber.

23. (Original) The method according to claim 22, wherein the step of regulating the temperature further includes the steps of: pre-heating the housing; and maintaining the temperature of the housing.

24. (Original) The method according to claim 23, wherein: the step of pre-heating comprises the step of adjusting the temperature of the housing to between approximately 100 degrees Celsius and approximately 120 degrees Celsius; and the step of maintaining the temperature of the housing comprises the step of maintaining the temperature between approximately 100 degrees Celsius and approximately 120 degrees Celsius.

25. (Currently amended) The method according to claim [[18]] 22 wherein the step of reintegrating the reaction product further includes the step of removing the reaction product and excess reactant through an output stream.

26. (Currently amended) The method according to claim [[18]] 22 wherein the step of reacting the aqueous bromine and hydrogen includes the step of associating same with a catalyst.

27. (Currently amended) The method according to claim 26 wherein the catalyst comprises at least one of platinized carbon, and the step of reacting includes applying heat.

Add the following new claims:

28. (New) The device according to claim 7 wherein the housing further includes an excess aqueous bromine pool region adjacent the hydrobromic acid distribution means.

29. (New) The device according to claim 7 wherein the hydrogen receiving means and the bromine receiving means comprise an inlet stream coupling operatively attached to the zinc-bromine battery.

30. (New) The device according to claim 7 wherein the hydrobromic distribution means comprises an outlet stream coupling operatively attached to at least one of an electrolyte stream or electrolyte reservoir of the zinc-bromine battery.

31. (New) The device according to claim 7 further including means for controlling flow of a gas through the housing.